UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

RDMS DocID 00100138

Pratt & Whitney
CTD990620811
R-9
RDMS # 100138

June 28, 2001

Thomas J. Salimeno, P.E.
Vice President
Loureiro Engineering Associates, Inc.
100 Northwest Drive
Plainville, CT 06062

Dear Mr. Salimeno:

The following are EPA's comments on the Marin Investigation Report-North Parcel-Airport/Klondike Area ("Marin Report") and the Site Investigation and Remediation Report for the North Parcel at the Airport/Klondike Area submitted by LEA ("LEA Report").

Specific Comments-Marin Report

1. On page 14, under 4.2 Hollow-Stem Auger Soil Sampling, the statement "...split-spoon core barrel samplers were used to collect soil samples at continuous (i.e., every two feet) intervals from land surface to the bottom of the boring." It is not clear whether the samples were collected every two feet as the hollow-stem was advanced or if the sampling took place in intervals of two feet for the entire depth of the boring. Please clarify.

2. On page 15, under 4.3 Monitoring Well Installations and Construction, the first paragraph did not mention any well development procedure. It does mention that "Well construction detail forms are provided in Appendix B." but the report does not have an Appendix B or any of the appendices listed on the table of contents.

3. On page 18, the second paragraph does not mention anything about the conditions of the deeper aquifer.

4. Pages 21 through 23 are missing; page 25 is also missing.

5. On page 27, under 6.2.2 Semi-Volatile Organic Compounds (SVOC): "...soil samples were not collected or analyzed for VOCs at this location." We believe SVOC was the intended acronym.

6. The first and second paragraphs on page 33, under 6.4.6 Priority Pollutant Metals mention that arsenic concentrations were exceeded in ten soil samples at depths between 14 to 22 feet below grade and that the ten samples were re-analyzed for arsenic. The rationale that follows:

"As DEC criterion apply to soils within 15 feet of the surface, the purpose for completing the

additional analysis pertained to potential soil management subjects during Stadium construction, rather than compliance issues relative to in situ RSR criteria."

does not state how and what would be done with the existing arsenic exceedances. EPA believes that the detected and exceeded levels of arsenic need to be revised.

7. We do not agree with the explanation given on page 34, second paragraph regarding the arsenic exceedances. Namely, the report states that:

"The difference...is attributable to two factors: 1) soil moisture; and 2) soil homogeneity...as the samples contained a majority of clay constituents, and inorganics tend to sorb to clay minerals, a false positive, or higher concentration may be reported by the laboratory. Appendix D contains the laboratory narrative specific to the additional total analysis for arsenic."

We believe that the arsenic levels are accurate and simply reflective of a high background condition as has been indicated by previous work by LEA.

Furthermore, Appendix D was not included in the report.

8. On page 34, under 6.5.2 Semi-Volatile Organic Compounds (SVOCs) it is mentioned that one soil sample was collected from area 581-SSGP1. EPA would lie to know why only one sample taken and the rationale behind it. The paragraph states that "SVOCs were not detected in the soil *samples* (emphasis added) collected from this area." Please clarify the discrepancy in the number of soil samples.

9. EPA believes that new data points need to be generated based on the information contained on page 37, under 6.6.6 Priority Pollutant Metals.

10. On page 38, under 7.0 Sampling Quality Assurance and Quality Control, we noticed the following:

- o matrix spikes were not utilized;
- o no performance evaluation samples were taken;
- o no clear validation procedure was used;
- o there was no information provided on holding/handling times.

11. The precision requirement factor of 5 mentioned on page 40, second paragraph from the top seems large. Please explain.

12. We need to stress the need to further characterize the two "mounded" areas that are located immediately outside the boundaries of the project as well as the "parking lot sweepings area" that is located within the project. The two areas and the parking lot are mentioned under 9.0 Conclusions and Recommendations, page 44, third paragraph.

13. As a general comment, EPA would like to express our concern regarding the elevated Minimum Detection Limits (MDLs) associated with the laboratory work, especially for

(groundwater) PCBs, pesticides/herbicides and metals; for soils, SVOCs, PCBs, pesticides/herbicides and thallium (i.e., they are too high to prove levels of concern are not present). We must rely on low likelihood of presence based on site history.

Specific Comments - Site Investigation and Remediation Report for the North Parcel at the Airport/Klondike Area

1. On page 7-3, under 7.2.1 Direct Exposure Criteria, second paragraph, we found no matches between the removal areas and the exceedances. Please clarify.

2. On page 7-4, under 7.3.1 Surface Water Protection Criteria, the first sentence indicates that "...several exceedances of the SWPC were noted for metals in groundwater." The second sentence does not explain what metals were exceeded, but only mentions zinc concentrations below the SWPC. Additionally, boring NA-SB-29 was not found on map #4. Please clarify.

3. On page 7-5, section 7.3.2 Residential Volatilization Criteria, the statement "...RSRs apply to groundwater within fifteen feet of the ground surface or a building." Will this rationale hold true after the development of the stadium? Please clarify.

4. There is a discrepancy on page 9-5, under 9.2.1.5 North Klondike Undeveloped Land Soil Pile. It states that "...Therefore, no samples were collected for subsequent laboratory analysis. VOCs were not detected in the soil samples...One or more of the metals analyzed were detected in each of the soil samples submitted for analysis...metals include barium, chromium, copper and zinc." Please clarify this discrepancy.

5. On page 9-8, second paragraph, EPA would like to know why for the remaining soils with contamination an ELUR for soils below four feet will be sought but for the Outside Storage Area the ELUR will be below eight feet. We would also like to know what wells will be used in the monitoring.

EPA would like to have a meeting with UTC, LEA and the CT Department of Environmental Protection to coordinate the course of action regarding the Stadium Parcel and the Willow Brook PCB Clean-up efforts.

We look forward to discussing these comments with you in greater detail.

Sincerely,

Ernest Waterman, Environmental Scientist/Geologist
Juan A. Pérez, Environmental Scientist
RCRA Corrective Action
EPA New England

December 7, 2001

Loureiro Engineering Associates, Inc.

U. S. Environmental Protection Agency
JFK Federal Building (HBT)
1 Congress Street
Boston, MA 02114-2023

Pratt & Whitney
CTD990672081
R9

Attn.: Juan Perez

RE: Response To Comments North Parcel Report– Airport/Klondike Area
Pratt & Whitney, East Hartford, Connecticut
LEA Comm. No. 88UT032

Dear Mr. Perez:

Attached please find responses to comments received on the Site Investigation and Remediation Report for the North Parcel at the Airport/Klondike Area of the Pratt & Whitney (P&W) facility located at 400 Main Street in East Hartford, Connecticut. The comments were prepared by the U. S. Environmental Protection Agency (EPA) on the report dated July 28, 2000 prepared by Loureiro Engineering Associates, Inc. (LEA) on behalf of the Untied Technologies Corporation (UTC). This letter identifies the comments in **bold** with the responses provided immediately thereafter.

1. On page 7-3, under 7.2.1 Direct Exposure Criteria, second paragraph, we found no matches between the removal areas and the exceedances. Please clarify.

For Section 7.2.1 Direct Exposure Criteria, paragraphs two and three of the section identify specific soil boring locations with exceedances of direct exposure criteria for the Silver Lane Pickle Company Area and the North Klondike Undeveloped Land Outside Storage Area, respectively. The soil boring locations are also shown on Drawing 2 - North Parcel Soil Sampling Locations along with the outlines of the excavation areas. The excavation areas are further identified on Drawing 3 - North Parcel Test Pit Locations along with the test pit identifiers. In addition to the specific exceedances noted, the concentrations of some of the metals detected in the soil samples were not typical of background concentrations. Higher than background concentrations of metals were also detected in several soil samples from soil borings. The specific soil borings are also identified in Section 7.2.1 Direct Exposure Criteria, paragraphs two and three. The excavation areas shown on the drawing also encompass these areas with metals concentrations above background concentrations.

In addition, the specific Unit Specific Technical Memoranda (USTMs) present the results of soil and groundwater sampling and analysis in the vicinity of specific environmental units that were investigated and remediated as part of the investigation and remediation activities. These USTMs include text, tables, and drawings and are provided in Volume 2 of the report. The Drawings in the USTMs also show the specific boring locations along with exceedances of the applicable criteria of the Connecticut Remediation Standard Regulation (RSR). The excavation areas are further

identified on the USTMs Soil Investigations Drawings along with the test pit identifiers and gray-shaded boundaries.

2. On page 7-4, under 7.3.1 Surface Water Protection Criteria, the first sentence indicates that

"...several exceedances of the SWPC were noted for metals in groundwater." The second sentence does not explain what metals were exceeded, but only mentions zinc concentrations below the SWPC. Additionally, boring NA-SB-29 was not found on map #4. Please clarify.

The exceedances of the SWPC for metals included cadmium, lead, and zinc. Section 7.3.1 includes a brief summary of the exceedances of the particular criteria of the RSR. More detail is presented in the individual USTMs prepared for each of the environmental units to present the results of soil and groundwater sampling and analysis in the vicinity of specific environmental units that were investigated and remediated as part of the investigation and remediation activities. These USTMs include text, tables, and drawings and are provided in Volume 2 of the report.

Soil borings NA-SB-09 and NA-SB-29 that also included the collection of screenpoint groundwater samples from these locations were inadvertently omitted from Drawing 4 - North Parcel Groundwater Sampling Locations. A revised Drawing 4 has been attached for your use. The two drawings in the USTMs also show the specific boring locations along with exceedances of the applicable criteria of the RSR with separate tables and drawings for soil data and groundwater data.

3. On page 7-5, section 7.3.2 Residential Volatilization Criteria, the statement "..RSRs apply to groundwater within fifteen feet of the ground surface or a building." Will this rationale hold true after the development of the stadium? Please clarify.

After the development of the North Parcel for the construction of a football stadium, the volatilization criteria of the RSR will continue to apply to groundwater within 15 feet of the ground surface or a building. It must be noted that there were no exceedances of the volatilization criteria detected for the North Parcel regardless of the depth of the groundwater.

4. There is a discrepancy on page 9-5, under 9.2.1.5 North Klondike Undeveloped Land Soil It states that "...Therefore, no samples were collected for subsequent laboratory analysis. VOCs were not detected in the soil samples... One or more of the metals analyzed were detected in each of the soil samples submitted for analysis... metals include barium, chromium, copper and zinc." Please clarify this discrepancy.

An extraneous sentence was included in the above-noted text stating that no samples were collected for subsequent laboratory analysis. In fact, a total of fourteen soil samples were submitted to the LEA Analytical Laboratory and screened for the presence of target volatile organic compounds (VOCs), including benzene (BZ), ethylbenzene (EBZ), tetrachloroethylene (PCE), toluene (TL), 1,1,1-trichloroethane (TCA), trichloroethylene (TCE), and xylenes (XYL). Based on visual, olfactory, or instrument evidence, and with consideration of the potential release mechanism, two samples from each of the soil borings and from the test pit were submitted to Averill Environmental Laboratory, Inc. (AEL) for analysis. The six soil samples were analyzed for the presence of VOCs

and metals. VOCs were not detected in any of the soil samples analyzed by the LEA Analytical Laboratory or AEL. One or more of the metals analyzed were detected in each of the six soil samples submitted for analysis. These metals include barium, chromium, copper, and zinc.

In addition, the specific USTMs for the North Klondike Undeveloped Land Soil Pile provided in Volume 2 of the report presents the results of soil and groundwater sampling and analysis completed as part of the investigation and remediation activities. The USTM includes the rationale for conducting any investigation activities at that location, an outline of any investigation that was performed, analytical results from the investigation, and any conclusions based on the data collected.

5. On page 9-8, second paragraph, EPA would like to know why for the remaining soils with contamination an ELUR for soils below four feet will be sought but for the Outside Storage Area the ELUR will be below eight feet. We would also like to know what wells will be used in the monitoring.

For the Outside Storage Area, exceedances of both the direct exposure criteria and the pollutant mobility criteria were present. To satisfy, the pollutant mobility criteria, exceedances must be remediated to the seasonal low water table that is at 8 feet in the vicinity of the Outside Storage Area. In general, these exceedances were for Total Petroleum Hydrocarbons (TPH) where the direct exposure criteria and the GB pollutant mobility criteria are equal.

The monitoring well network for the remediation areas has not been defined as of yet. In accordance with Section 22a-133k-3(g)(2)(A), post-remediation groundwater monitoring must be performed to confirm the effectiveness of the soil remediation in eliminating a source of contaminants to groundwater in the release areas. It is expected that the post-remediation groundwater monitoring well network will make maximum use of existing monitoring wells. Where necessary, additional monitoring wells will be installed to supplement the post-remediation groundwater monitoring well network.

If you have any questions or comments concerning the attached information or any of the previously submitted information, please contact me at 860-410-2969.

Sincerely,
LOUREIRO ENGINEERING ASSOCIATES, INC.

Thomas J. Salimeno, P.E., L.E.P.
Vice President

Attachments

pc: Ernest Waterman, EPA
Joseph Tota, UTC

US EPA New England
RCRA Document Management System
Image Target Sheet

RDMS Document ID # 100138

Facility Name: PRATT & WHITNEY - MAIN STREET

Facility ID#: CTD990672081

Phase Classification: R-9

Purpose of Target Sheet:

[X] **Oversized** (in Site File) [ ] **Oversized** (in Map Drawer)

[ ] **Page(s) Missing** (Please Specify Below)

[ ] **Privileged** [ ] **Other** (Provide Purpose Below)

Description of Oversized Material, if applicable:

NORTH PARCEL GROUNDWATER SAMPLING LOCATIONS

[X] **Map** [ ] **Photograph** [ ] **Other** (Specify Below)

*** Please Contact the EPA New England RCRA Records Center to View This Document ***